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<220> FEATURE:
<223> OTHER INFORMATION: Synthetic- Murine leukemia virus epitope used in H-2Ld MuLV gp70 Tetramer

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<223> OTHER INFORMATION: Synthetic- Influenza A virus epitope used in Influenza HA Tetramer

<400> SEQUENCE: 27

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What is claimed is:

1. Modified tumor-derived extracellular vesicles (EVs) isolated from a tumor cell having reduced or lacking expression of an immune suppressive factor.

2. The modified tumor-derived EVs of claim **1**, wherein the immune suppressive factor is miR-424.

3. The modified tumor-derived EVs of claim **1**, wherein the EVs are exosomes or microvesicles.

4. The modified tumor-derived EVs of claim **1**, wherein the EVs are about 30 to about 300 nanometers in diameter.

5. The modified tumor-derived EVs of claim **1**, wherein the EVs are isolated from a tumor cell that has been modified to inhibit expression of immune suppressive factor.

6. The modified tumor-derived EVs of claim **1**, wherein the tumor cell is a cultured tumor cell or a tumor organoid.

7. The modified tumor-derived EVs of claim **6**, wherein the tumor cell is selected from the group consisting of a colorectal cancer cell, breast cancer cell, endometrial cancer cell, prostate cancer cell, lung cancer cell, melanoma cell, and pancreatic cancer cell.

8. The modified tumor-derived EVs of claim **1**, wherein the EVs comprise one or more exogenous antigens.

9. A composition comprising the modified tumor-derived EVs of claim **1**, a pharmaceutically acceptable carrier, and one or more checkpoint inhibitor.

10. A method of producing a tumor-derived extracellular vesicle (EV) substantially lacking expression of an immune suppressive factor, the method comprising:

(a) providing a modified tumor cell that lacks expression of the immune suppressive factor and can produce EVs; and

(b) isolating EVs produced by the tumor cell, wherein the EVs substantially lack expression of the immune suppressive factor.

11. The method of claim **10**, wherein the immune suppressive factor is miR-424.

12. The method of claim **10**, wherein the method comprises:

a) transducing the tumor cell with an anti-miR-424 expression vector,

b) transfecting the tumor cells with an anti-miRNA-424 oligo, or

c) knocking out the miR-424 gene from the tumor cell using CRISP/Cas9 genome editing.

13. The method of any one of claim **10**, wherein the tumor cell is a cultured tumor cell or a tumor organoid.

14. A method of treating cancer in a subject, the method comprising: administering an effective amount of tumor-derived EVs to a subject in need thereof, wherein the EVs substantially lack expression of an immune suppressive factor or miR-424, and wherein the EVs comprise one or more cancer antigen.

15. The method of claim **14** further comprising administering a chemotherapy to the subject.

16. The method of claim **15**, wherein the tumor-derived EVs are administered after the subject's T-cell population have substantially recovered following the chemotherapy.

17. A method of stimulating an anti-tumor response in a subject having cancer, the method comprising: administering a vaccine comprising the tumor-derived EVs of claim **1** to a subject having cancer in an amount effective to elicit an anti-tumor response in the subject.

18. The method of claim **17**, wherein administering the vaccine or composition (a) increases CD28 expression on T cells, (b) increases T cell proliferation, or (c) both increases CD28 expression on T cells and increases T cell proliferation in a subject having cancer.

19. The method of claim **17**, wherein the anti-tumor response comprises the reduction or inhibition of secondary tumor growth.

20. A method of sensitizing a tumor cell in a subject to immune checkpoint inhibitors, the method comprising: administering the tumor-derived EVs of claim **1** to a subject having cancer and subsequently administering one or more checkpoint inhibitor to the subject.

21. The method of claim **20**, wherein the checkpoint inhibitor is selected from a PD-1 inhibitor, a PDL1 inhibitor, a CTL4 inhibitor, or a combination thereof.

22. A method of preventing, reducing, or inhibiting tumor growth in a subject, the method comprising: administering an effective amount of a vaccine comprising tumor-derived EVs of claim **1** to a subject in need thereof to prevent, reduce